Electronic Version
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[Method for Simultaneously Considering Customer Commit Dates and Customer Request Dates]

Abstract

The invention disclosed here is a method for achieving simultaneous consideration of multiple customer demand dates within an advanced planning system. The invention provides a method of production planning that considers multiple due dates. The invention solves a production planning model based upon the second (commit) date to produce a first solution, sorts the demand records in order of importance, and then re-solves the production planning model based upon the first (request) date to produce a second solution. The re-solving process is performed on each demand item in the sorted order of importance. The invention optimizes between the first solution and the second solution. Before re-solving the production planning model, the invention changes the lower bound constraints on backorder variables. The re-solving process changes the required date for a single demand item, and this re-solving process is repeated for all demand items that have a first (request) date that is before a corresponding re-

quired date. The invention reports the optimal solution produced during the optimizing process. The system and method integrate the consideration of multiple demand dates with an advanced planning system for optimizing established planning objectives (e.g. customer service, short lead times, low inventory, and prioritized allocation of supply and capacity) to compute a feasible production plan for the division.